

FIG. 1

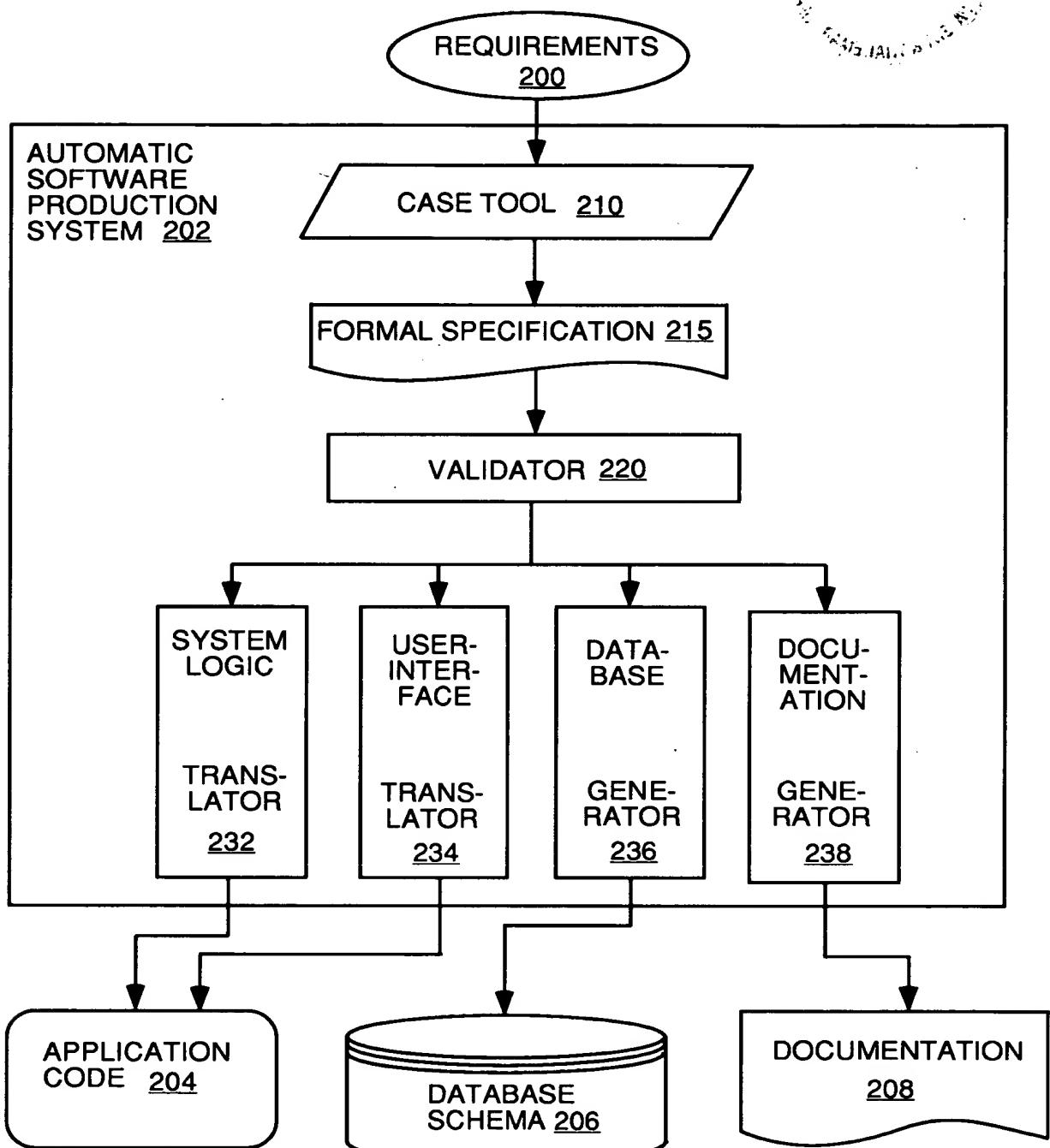


FIG. 2

1000 100

FIG. 3

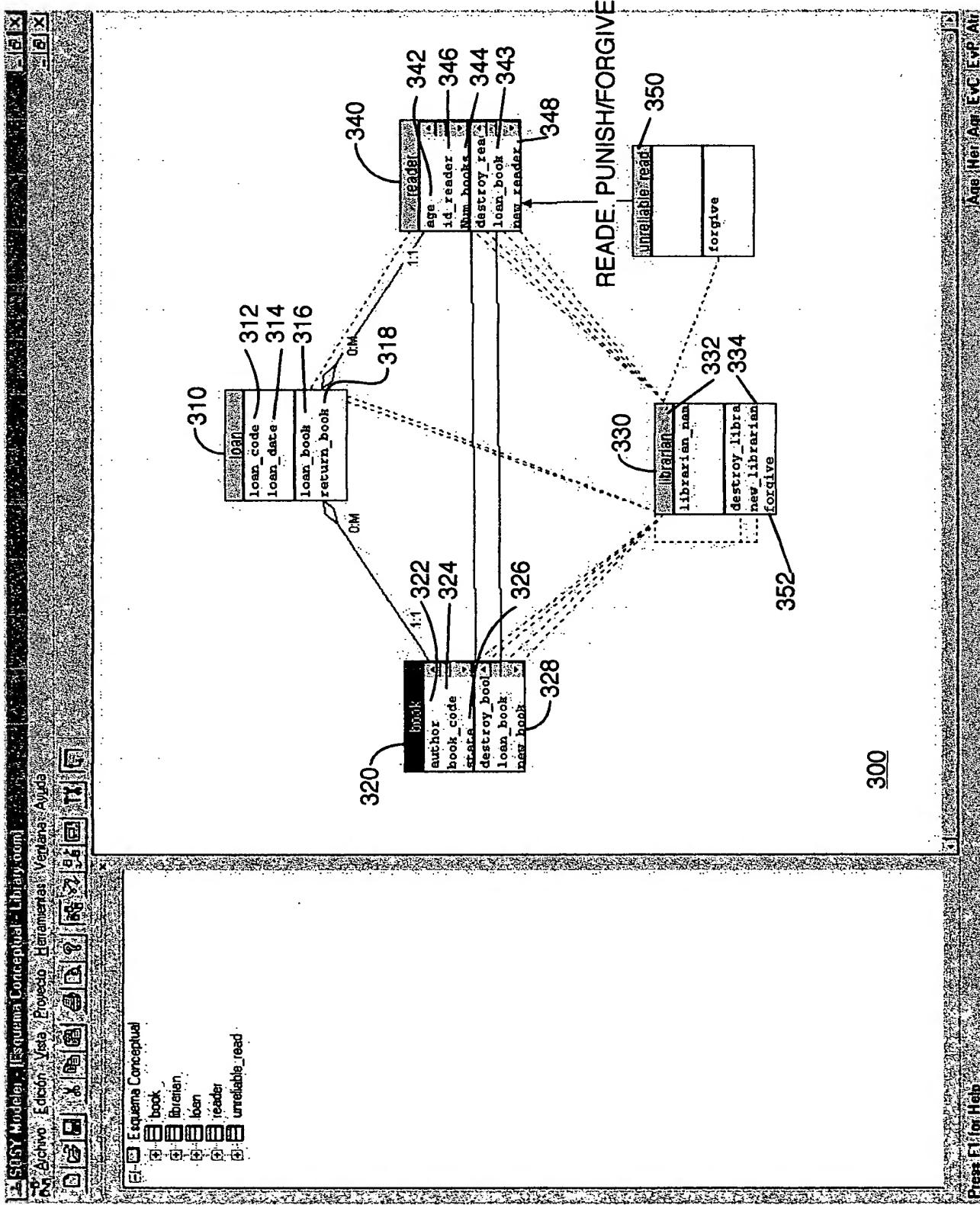
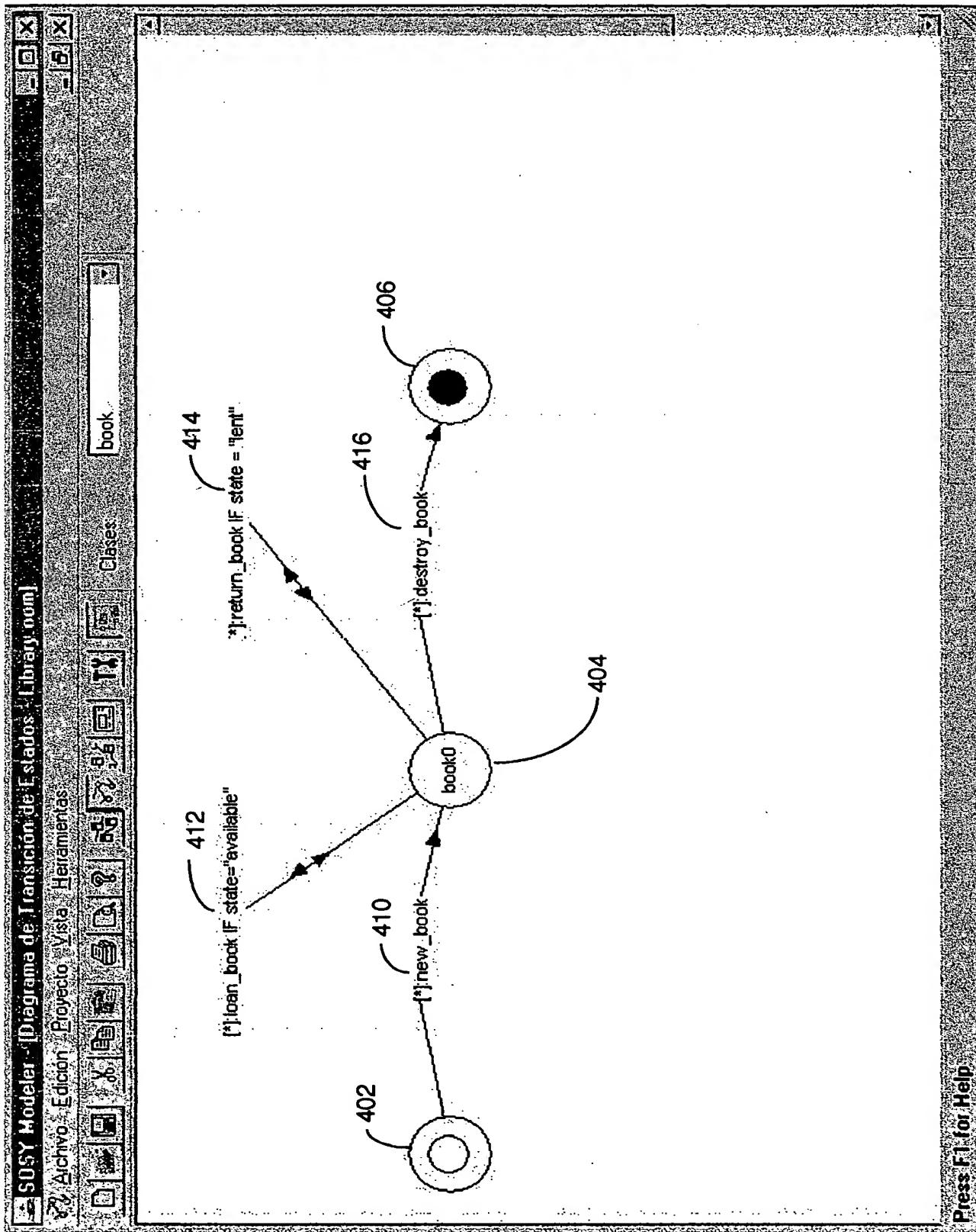


FIG. 4A



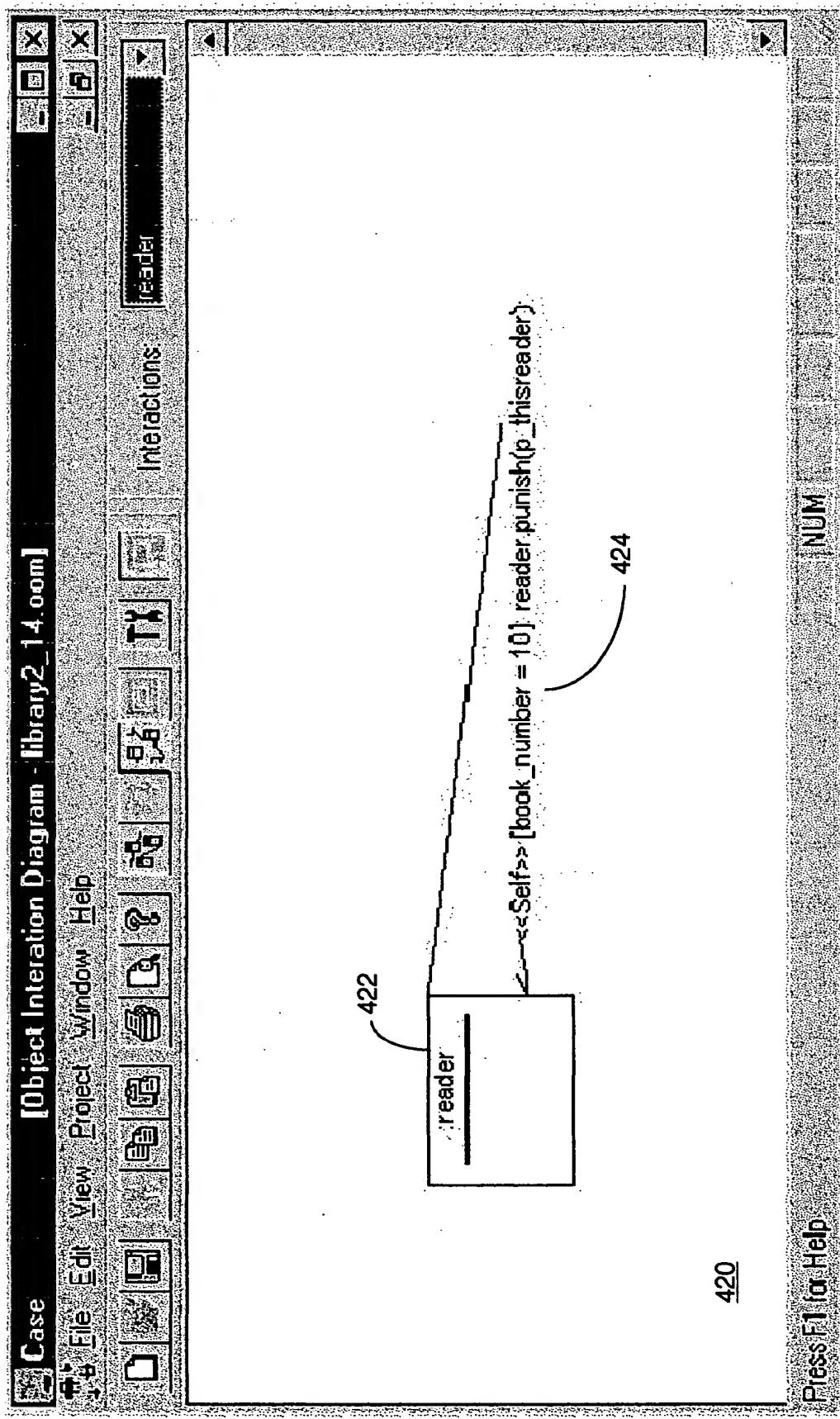
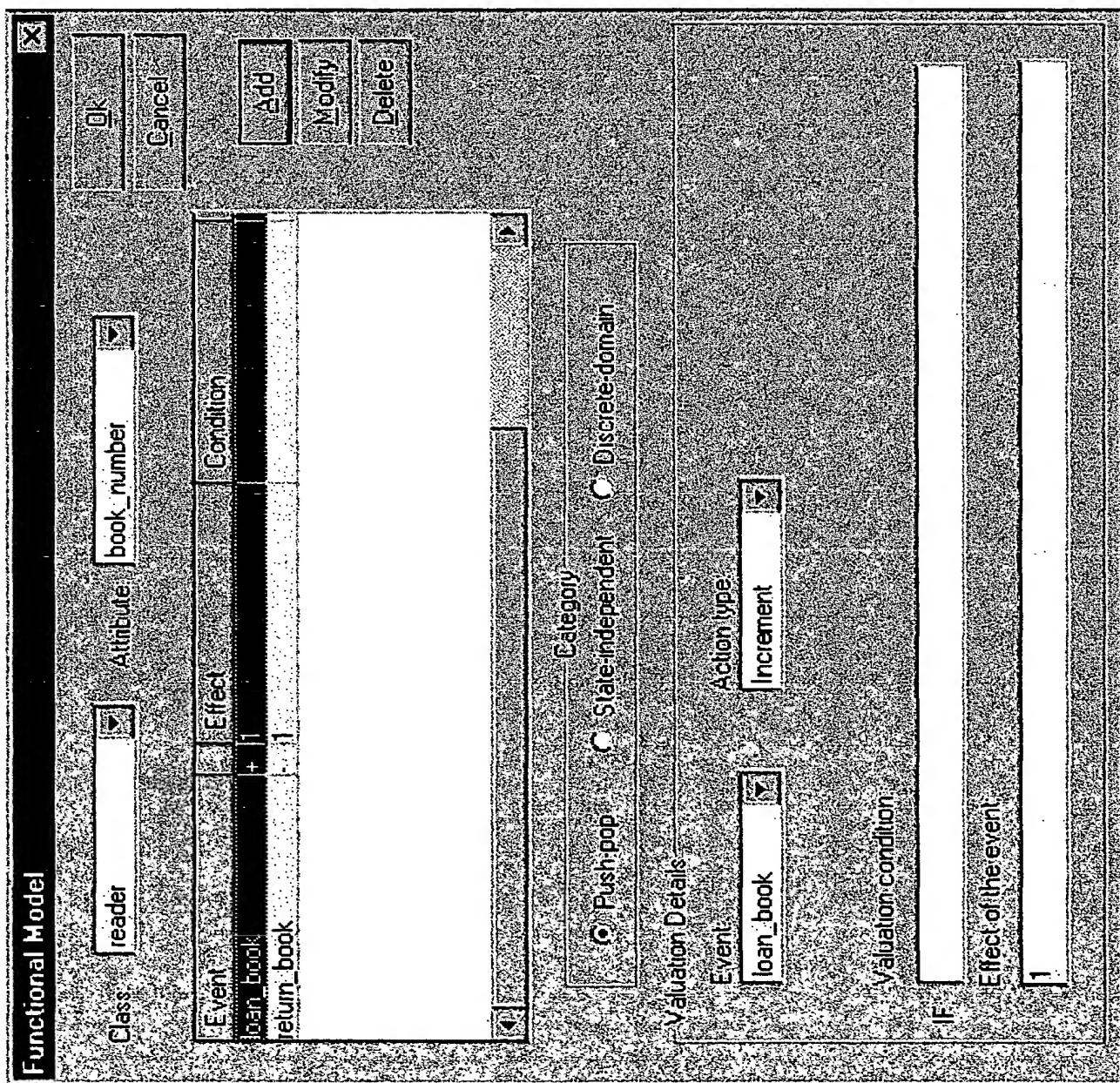


FIG. 4B

SEARCHED
INDEXED
SERIALIZED
FILED
JUN 1 2001
U.S. PATENT AND TRADEMARK OFFICE

FIG. 5



FLOWCHART OF THE FUNCTIONS THAT ALL SPECIES OF SYSTEM LOGIC
TRANSLATORS WILL PERFORM

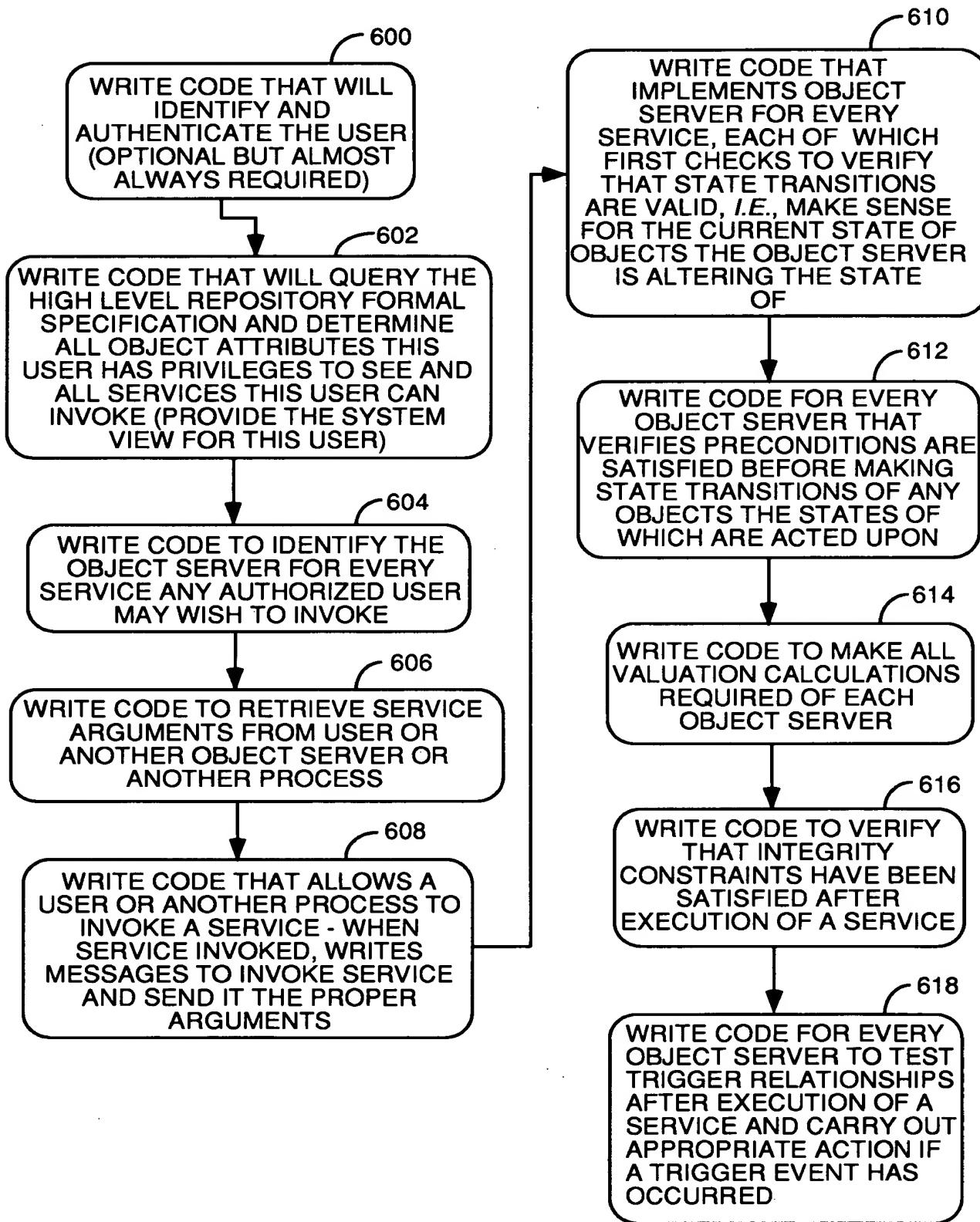


FIG. 6

FLOWCHART OF THE FUNCTIONS THAT ALL SPECIES IN THE USER INTERFACE TRANSLATOR SUBGENUS WILL PERFORM

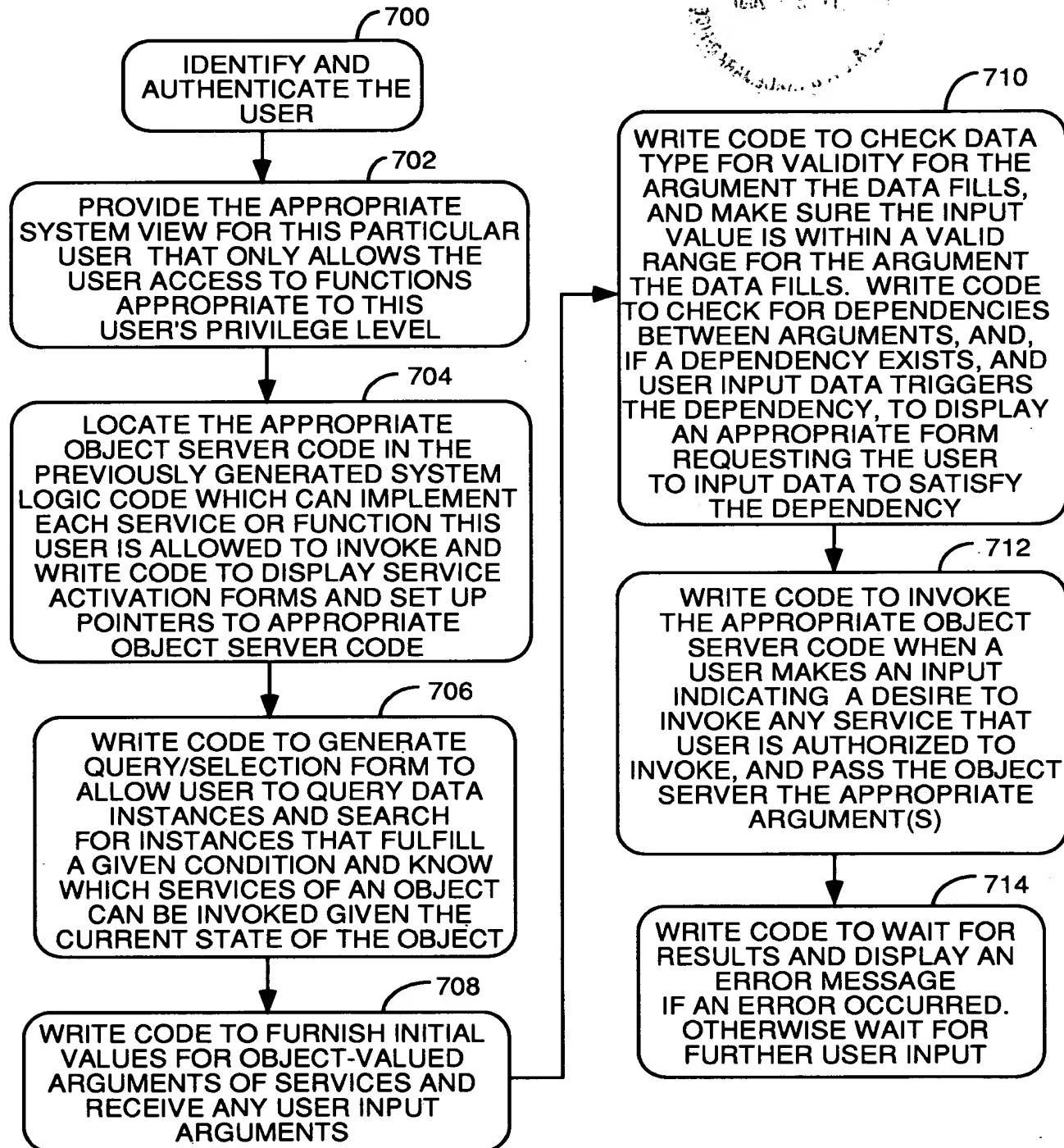


FIG. 7

FLOWCHART OF THE FUNCTIONS THAT ALL SPECIES IN THE DATABASE
GENERATOR TRANSLATOR SUBGENUS WILL PERFORM

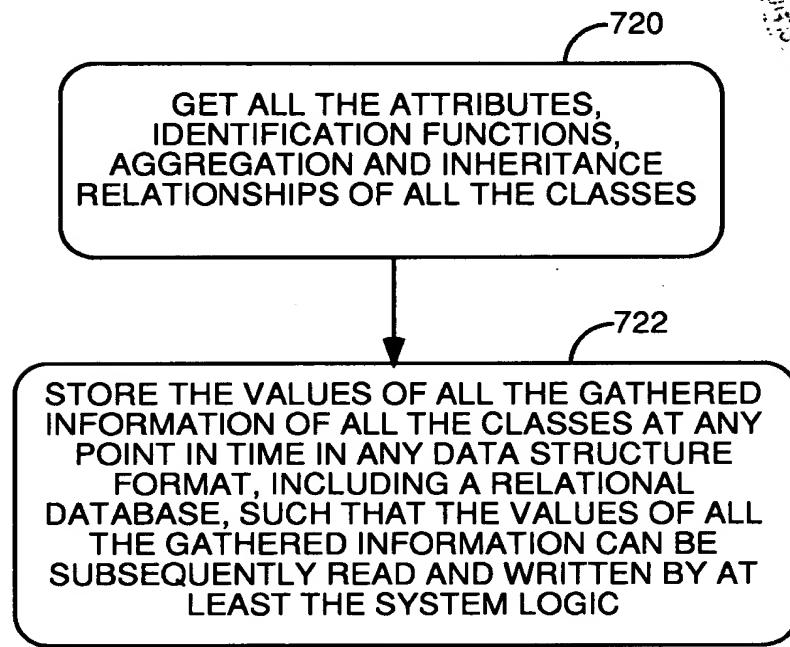
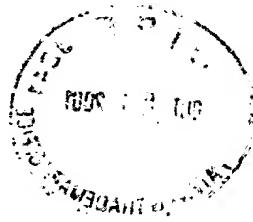


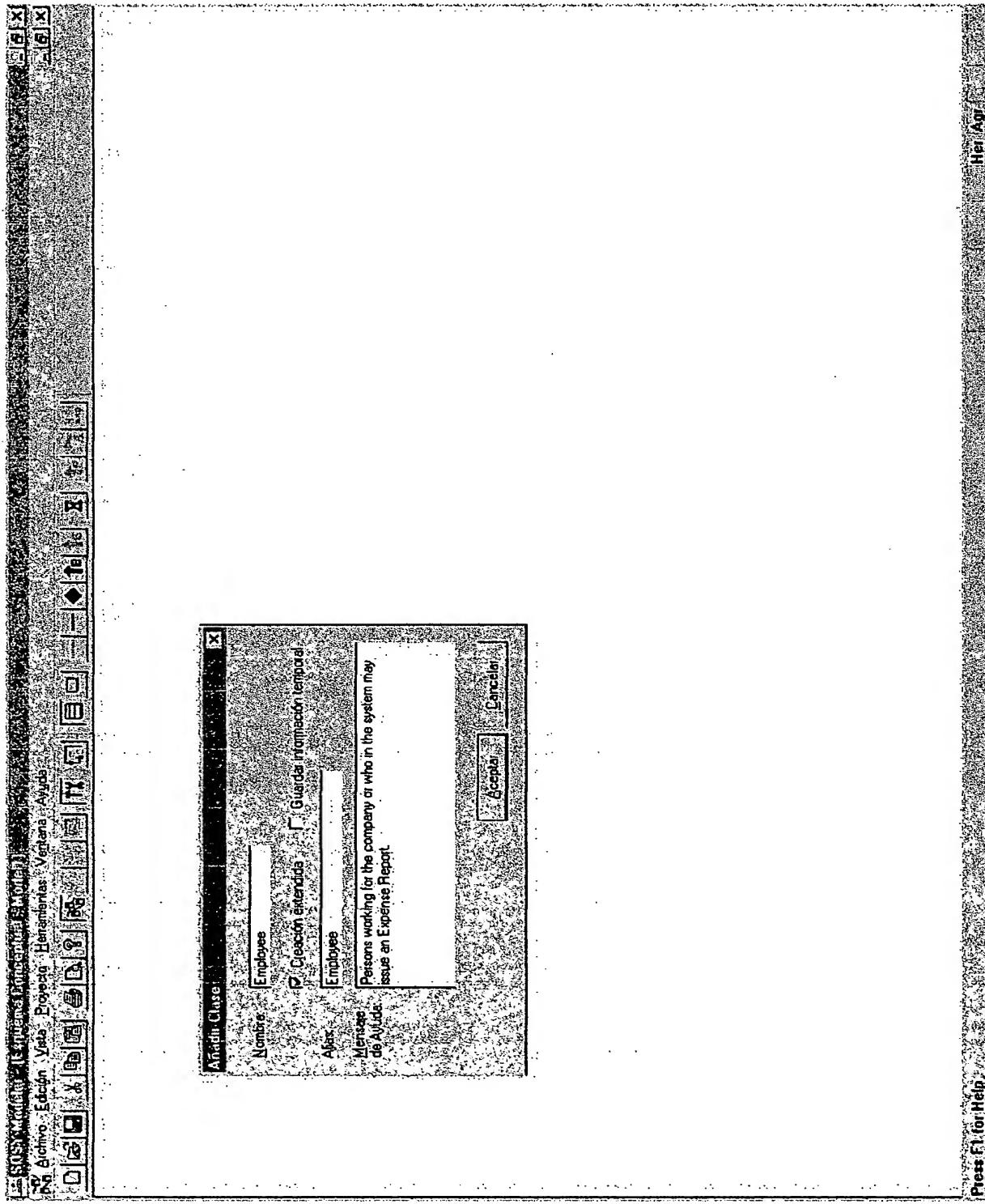
FIG. 8

00000000000000000000000000000000

AUTOMATIC SOFTWARE PRODUCTION SYSTEM
INVENTOR: IBORRA AND PASTOR
PATENT NO. 09/872,087
CHG DATE: 06/01/01
DOCKET NO. CHG-001.2P

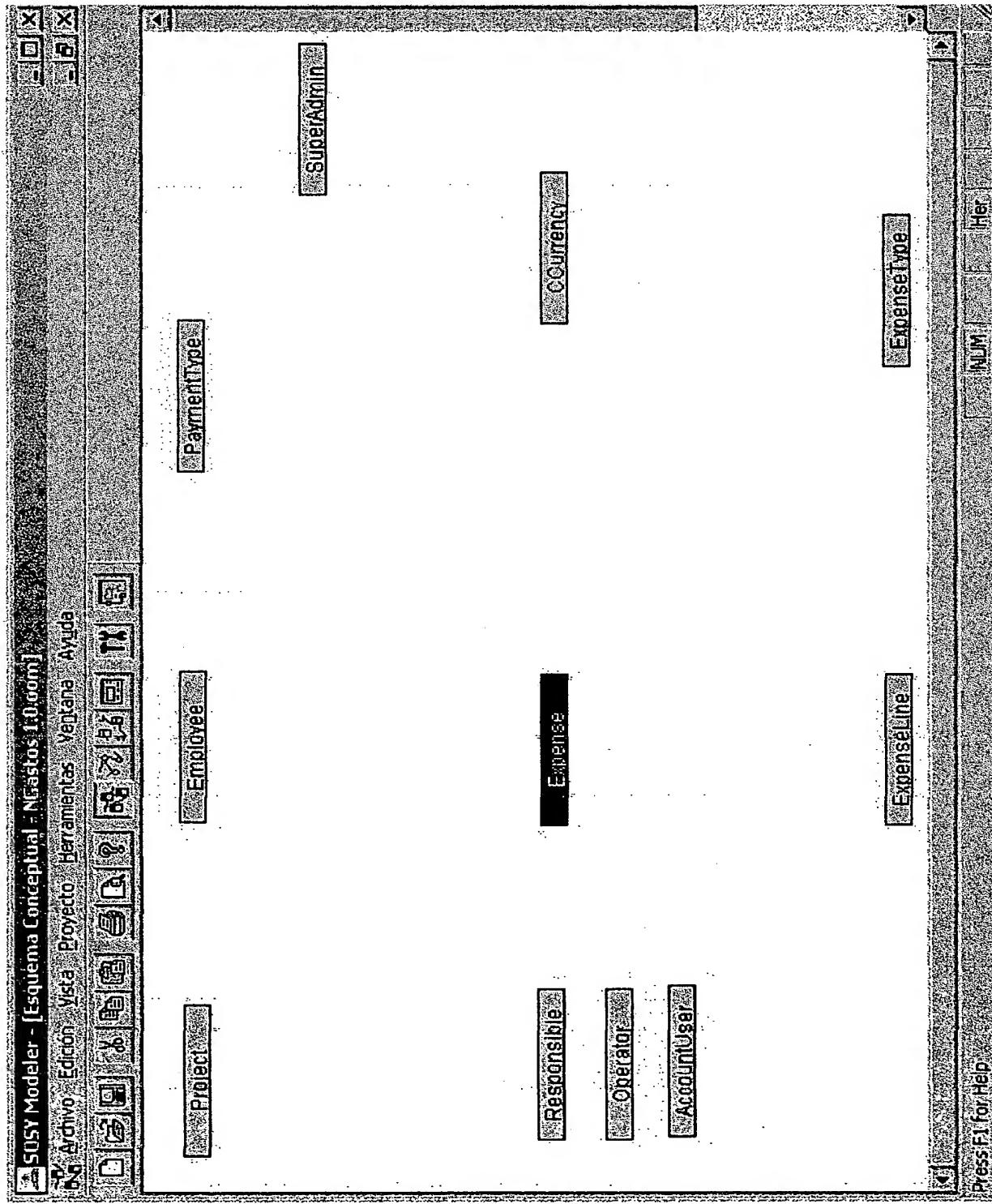
CLASS CREATION
DIALOG

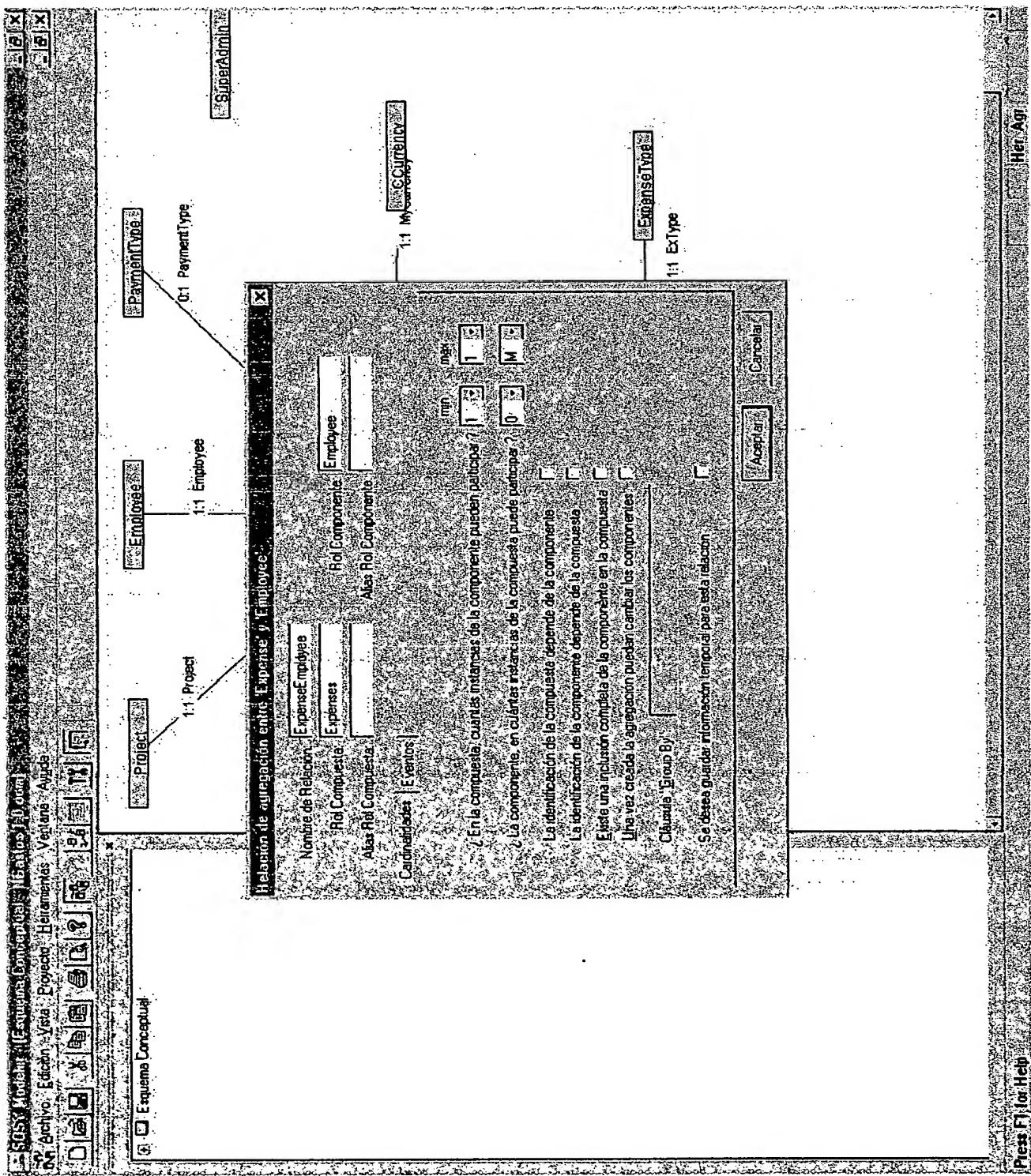
FIG. 9A



ALL CLASSES
NEEDED AND
CREATED IN
EXPENSE
MANAGEMENT
SYSTEM

FIG. 9B





GRAPHIC DIALOG
 TO CREATE
 RELATIONSHIPS
 BETWEEN
 CLASSES AND
 GRAPHICALLY
 SHOW THE
 RELATIONSHIPS
 SO CREATED

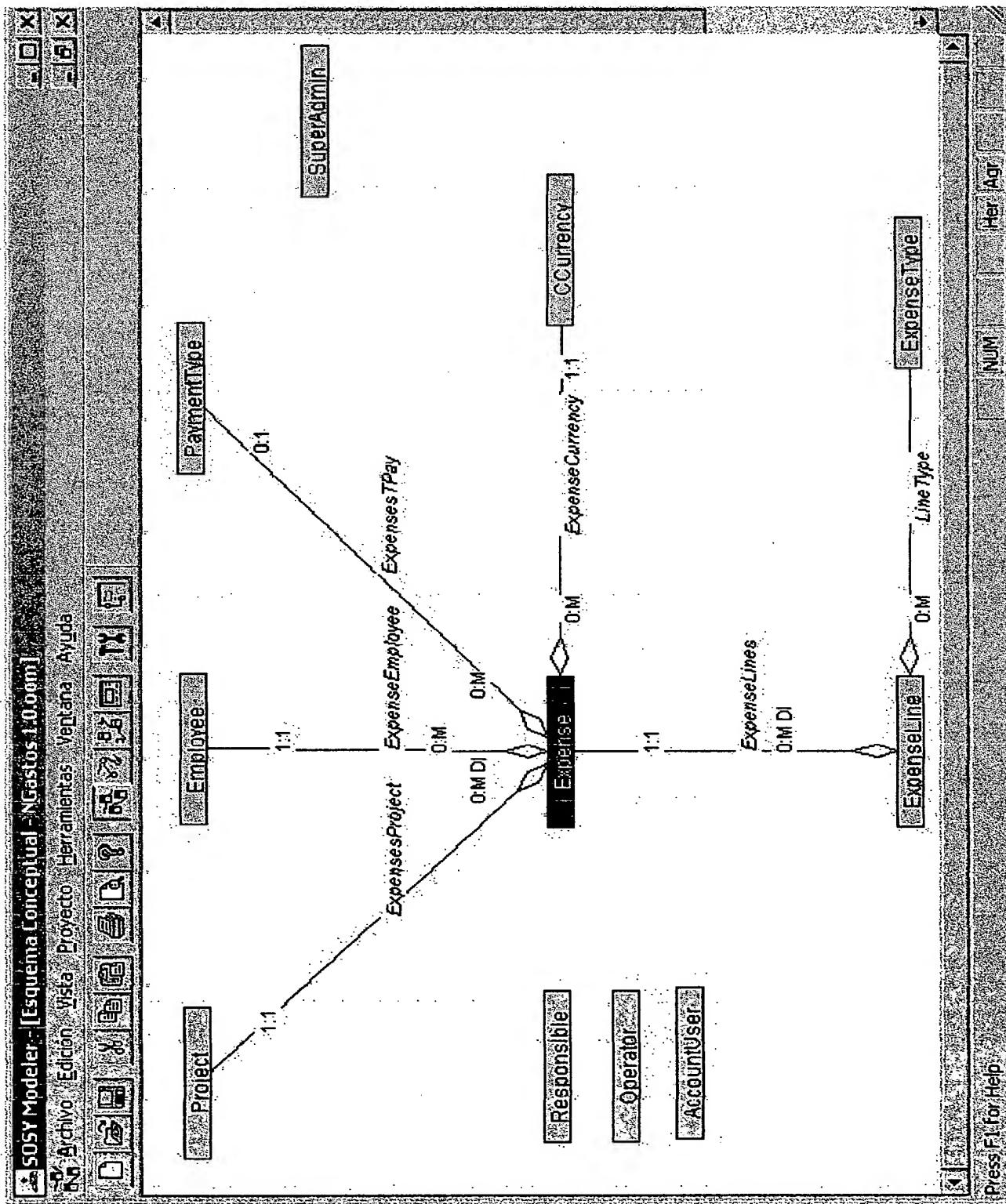


FIG. 10

Clase: Expense						
Atributos						
Nombre	Tipo Atributo	Tipo dato	d	Tamaño	Val. defecto	Ped. al crear
PresentDate	Constante	Date		today()	Sí	No
Status	Variable	Int	0		No	No
Cause	Variable	String	255		Sí	No
AuthoDate	Variable	Date	NULL		No	Sí
AuthoComments	Variable	String	255	NULL	No	Sí
PaymentDate	Variable	Date	NULL		No	Sí
PayComments	Variable	String	255		No	Sí
TotalExpenses	Derivado	Real				
TotalExpensesCur	Derivado	Real				
Advances	Variable	Real	0		Sí	No
AdvancesCur	Derivado	Real			No	Sí
Exchange	Variable	Real				
Balance	Derivado	Real				
BalanceCur	Derivado	Real				
Nombre: Expense						
Tipo Atributo: Tipo Dato:						
Alias:	<input type="text"/>	<input type="button" value="▼"/>				
Observaciones:	<input type="text"/>					
<input type="checkbox"/> Información Temporal <input type="checkbox"/> Notas >>						
<input type="button" value="Limpiar"/> <input type="button" value="Aceptar"/> <input type="button" value="Cancelar"/>						

FIG. 11A

AUTOMATIC SOFTWARE PRODUCTION SYSTEM
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SERIAL NO. 09/872,087
FILING DATE: 06/01/01
DOCKET NO. CHG-001.2P

FIG. 11B

Clase	Atributos	Servicios	Devoluciones	Restricciones	Agentes	Transacciones	Relaciones	Generalidades
Attributo	Balance							
Condición								
Fórmula								
Observaciones								
Clase	Expense							

Buttons: **Acceptar**, **Cancelar**, **Modificar**, **Añadir**, **Borrar**

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SERVICES OF CLASS "EXPENSE"

FIG. 12

Eventos y Transacciones		Servicios		Servicios y Transacciones		Eventos y Transacciones	
Attributos	Servicios	Derivaciones	Restricciones	Agentes	Transacciones	Relaciones	Generalidades
<input type="checkbox"/> newExpense	<input type="checkbox"/> Características	<input type="checkbox"/> new	<input type="checkbox"/> radii	<input type="checkbox"/> Nombre	<input type="checkbox"/> P_Expense	<input type="checkbox"/> Tipo dato	<input type="checkbox"/> Añadir
<input type="checkbox"/> delExpense	<input type="checkbox"/> Destroy	<input type="checkbox"/> destroy	<input type="checkbox"/> Modifica	<input type="checkbox"/> P_Cause	<input type="checkbox"/> Expense	<input type="checkbox"/> String	<input type="checkbox"/> Modificar
<input type="checkbox"/> close	<input type="checkbox"/> close	<input type="checkbox"/> close	<input type="checkbox"/> Borra	<input type="checkbox"/> P_Advances	<input type="checkbox"/> P_Exchange	<input type="checkbox"/> Real	<input type="checkbox"/> Borrar
<input type="checkbox"/> authorize	<input type="checkbox"/> authorize	<input type="checkbox"/> authorize	<input type="checkbox"/> Copia	<input type="checkbox"/> Nota	<input type="checkbox"/> Nota	<input type="checkbox"/> Nota	<input type="checkbox"/> Nota
<input type="checkbox"/> pay	<input type="checkbox"/> pay	<input type="checkbox"/> pay	<input type="checkbox"/> rejectAutho	<input type="checkbox"/> Nota	<input type="checkbox"/> Nota	<input type="checkbox"/> Nota	<input type="checkbox"/> Nota
<input type="checkbox"/> rejectAutho	<input type="checkbox"/> rejectAutho	<input type="checkbox"/> rejectAutho	<input type="checkbox"/> rejectPayment	<input type="checkbox"/> Nota	<input type="checkbox"/> Nota	<input type="checkbox"/> Nota	<input type="checkbox"/> Nota
<input type="checkbox"/> rejectPayment	<input type="checkbox"/> rejectPayment	<input type="checkbox"/> rejectPayment	<input type="checkbox"/> insPaymentType	<input type="checkbox"/> Nota	<input type="checkbox"/> Nota	<input type="checkbox"/> Nota	<input type="checkbox"/> Nota
<input type="checkbox"/> insPaymentType	<input type="checkbox"/> insPaymentType	<input type="checkbox"/> insPaymentType	<input type="checkbox"/> borPaymentType	<input type="checkbox"/> Nota	<input type="checkbox"/> Nota	<input type="checkbox"/> Nota	<input type="checkbox"/> Nota
<input type="checkbox"/> borPaymentType	<input type="checkbox"/> borPaymentType	<input type="checkbox"/> borPaymentType	<input type="checkbox"/> DELETE	<input type="checkbox"/> Nota	<input type="checkbox"/> Nota	<input type="checkbox"/> Nota	<input type="checkbox"/> Nota
<input type="checkbox"/> DELETE	<input type="checkbox"/> DELETE	<input type="checkbox"/> DELETE	<input type="checkbox"/> TRAY	<input type="checkbox"/> Nota	<input type="checkbox"/> Nota	<input type="checkbox"/> Nota	<input type="checkbox"/> Nota
<input type="checkbox"/> TRAY	<input type="checkbox"/> TRAY	<input type="checkbox"/> TRAY	<input type="checkbox"/> Transacción	<input type="checkbox"/> Nombre	<input type="checkbox"/> Transacción	<input type="checkbox"/> Nombre	<input type="checkbox"/> Nombre
<input type="checkbox"/> Transacción	<input type="checkbox"/> Transacción	<input type="checkbox"/> Transacción	<input type="checkbox"/> New				
<input type="checkbox"/> New	<input type="checkbox"/> New	<input type="checkbox"/> New	<input type="checkbox"/> Destroy				
<input type="checkbox"/> Destroy	<input type="checkbox"/> Destroy	<input type="checkbox"/> Destroy	<input type="checkbox"/> Uso interno				
<input type="checkbox"/> Uso interno	<input type="checkbox"/> Uso interno	<input type="checkbox"/> Uso interno	<input type="checkbox"/> Alias				
<input type="checkbox"/> Alias	<input type="checkbox"/> Alias	<input type="checkbox"/> Alias	<input type="checkbox"/> Expense				
<input type="checkbox"/> Expense	<input type="checkbox"/> Expense	<input type="checkbox"/> Expense	<input type="checkbox"/> Mensajes de Ayuda				
<input type="checkbox"/> Mensajes de Ayuda	<input type="checkbox"/> Mensajes de Ayuda	<input type="checkbox"/> Mensajes de Ayuda	<input type="checkbox"/> Observaciones				
<input type="checkbox"/> Observaciones	<input type="checkbox"/> Observaciones	<input type="checkbox"/> Observaciones	<input type="checkbox"/> Acepta				

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DIALOG TO DEFINE
FORMULA FOR
"DELETEALL"
TRANSACTION

FIG. 13

Clase		Clase:	
Atributos Servicios Derivaciones Restricciones Agentes Transacciones Relaciones Generalidades		<input type="checkbox"/> Aceptar <input type="checkbox"/> Cancelar	
Transacción Formular		DELETE ALL <input type="checkbox"/>	
<p>FOR ALL Lines DO Lines deleteLine[Lines]_delExpense[THIS]</p>			
Acción Clase/Rol		Expense Observaciones	
Agentes		<input type="checkbox"/> aprove <input type="checkbox"/> Servicio <input type="checkbox"/> parametros <input type="checkbox"/> p_Expense <input type="checkbox"/> notificar <input type="checkbox"/> CreateParametro en la Transacción	
<p>Details</p>			
<input type="checkbox"/> C_1 <input type="checkbox"/> C_2 <input type="checkbox"/> C_3 <input type="checkbox"/> C_4			

INTEGRITY
CONSTRAINTS OF
EXPENSE CLASS

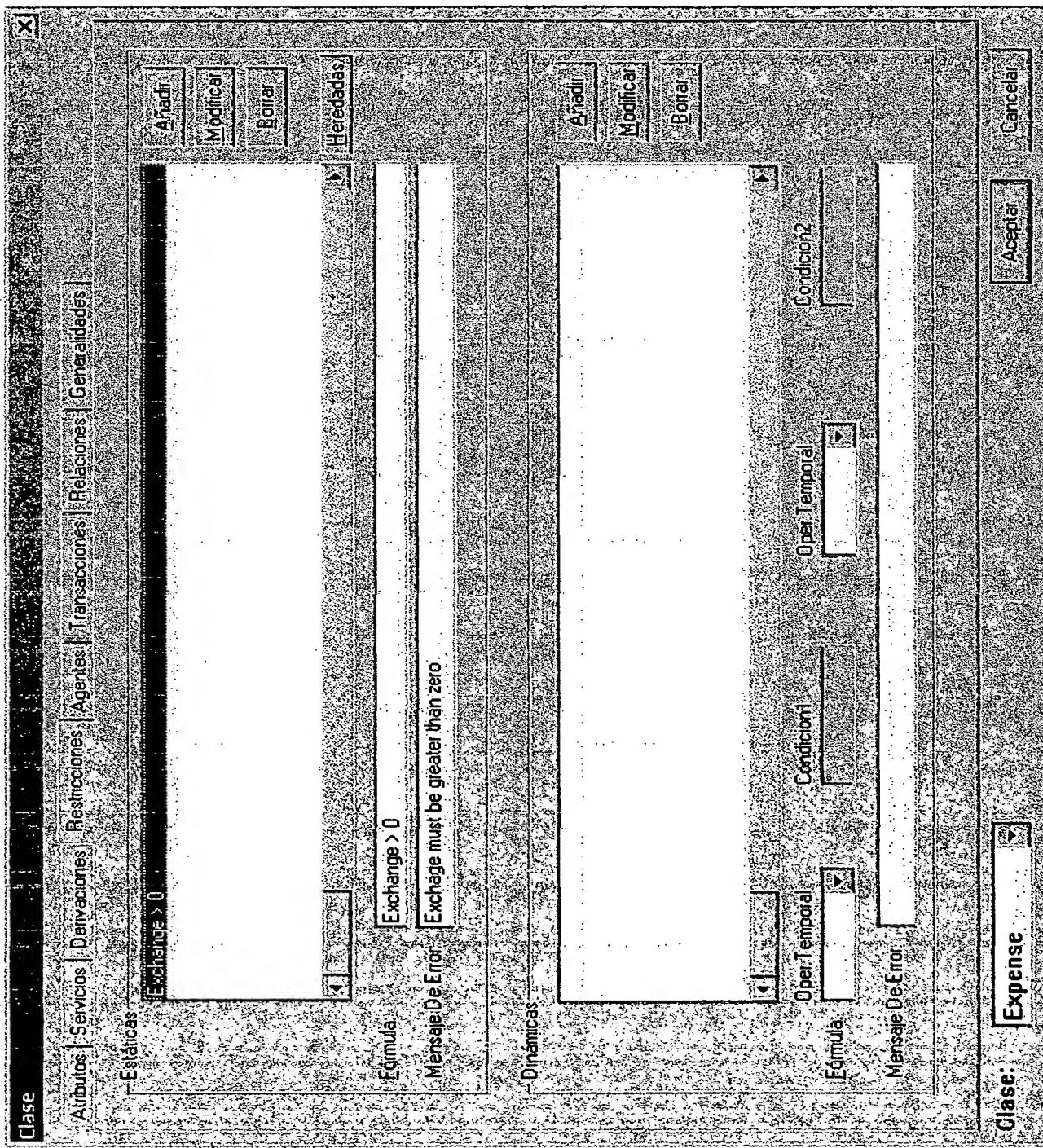
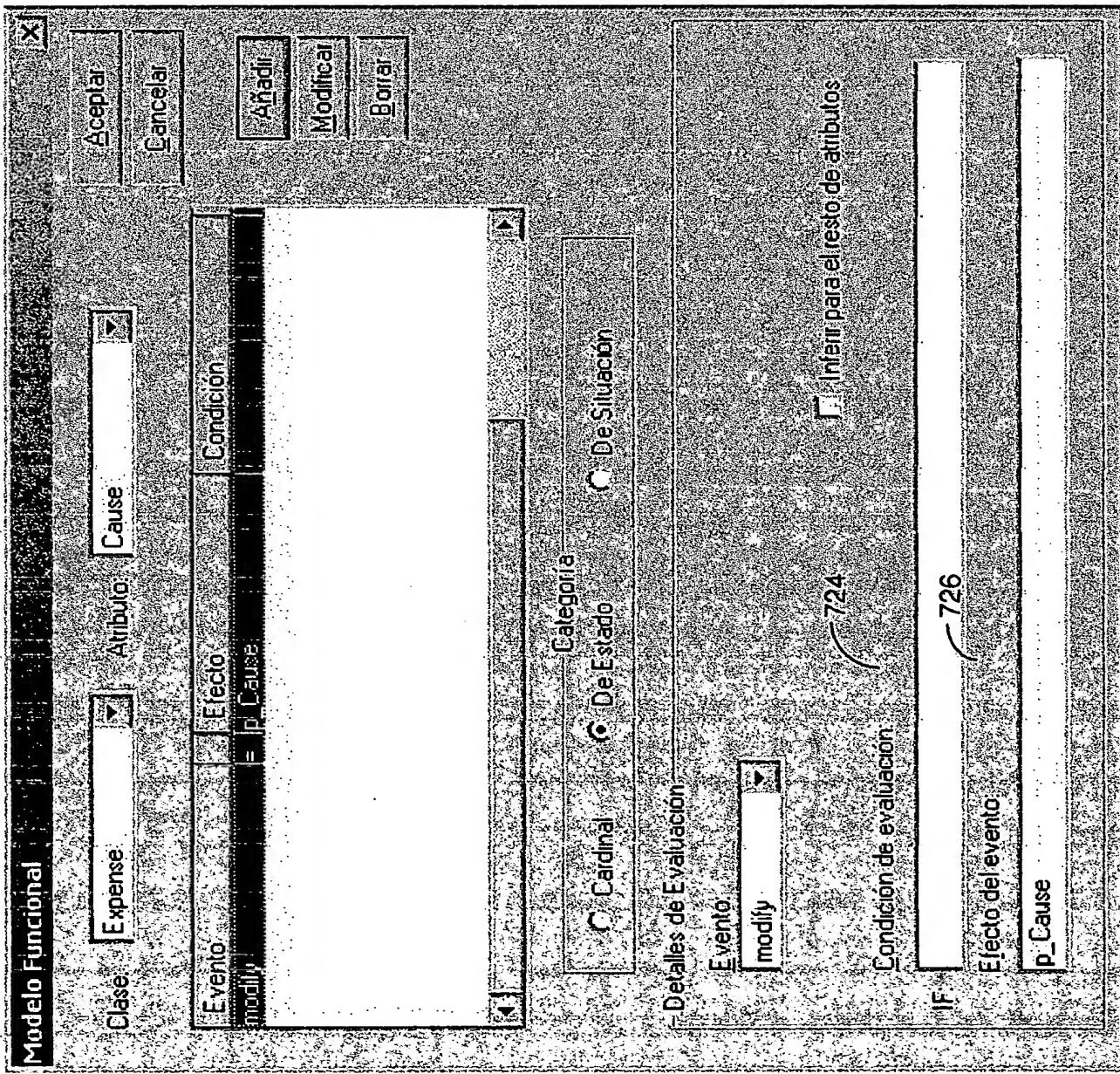


FIG. 14



DIALOG BOX TO CREATE
EVALUATION OF "CAUSE"
ATTRIBUTE WITH THE "MODIFY"
EVENT TO FORM PART OF
FUNCTIONAL MODEL

FIG. 15

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AGENT RELATIONSHIP
DIALOG THAT CAN BE
USED TO SET WHICH
SERVICES "ACCOUNT
USE" CAN ACCESS
AND VISIBILITY OF
CLASS ATTRIBUTES
FOR THIS USER

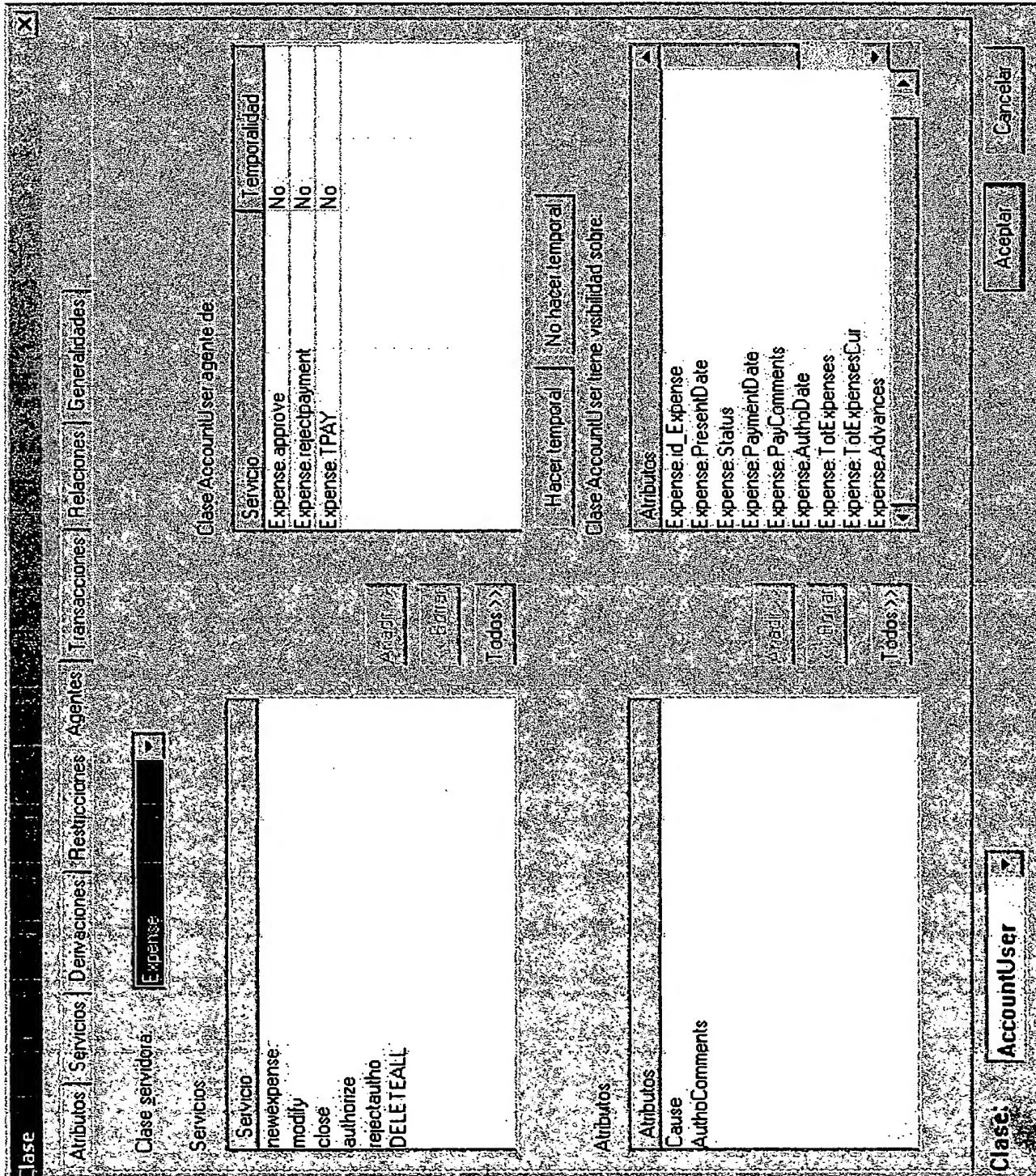
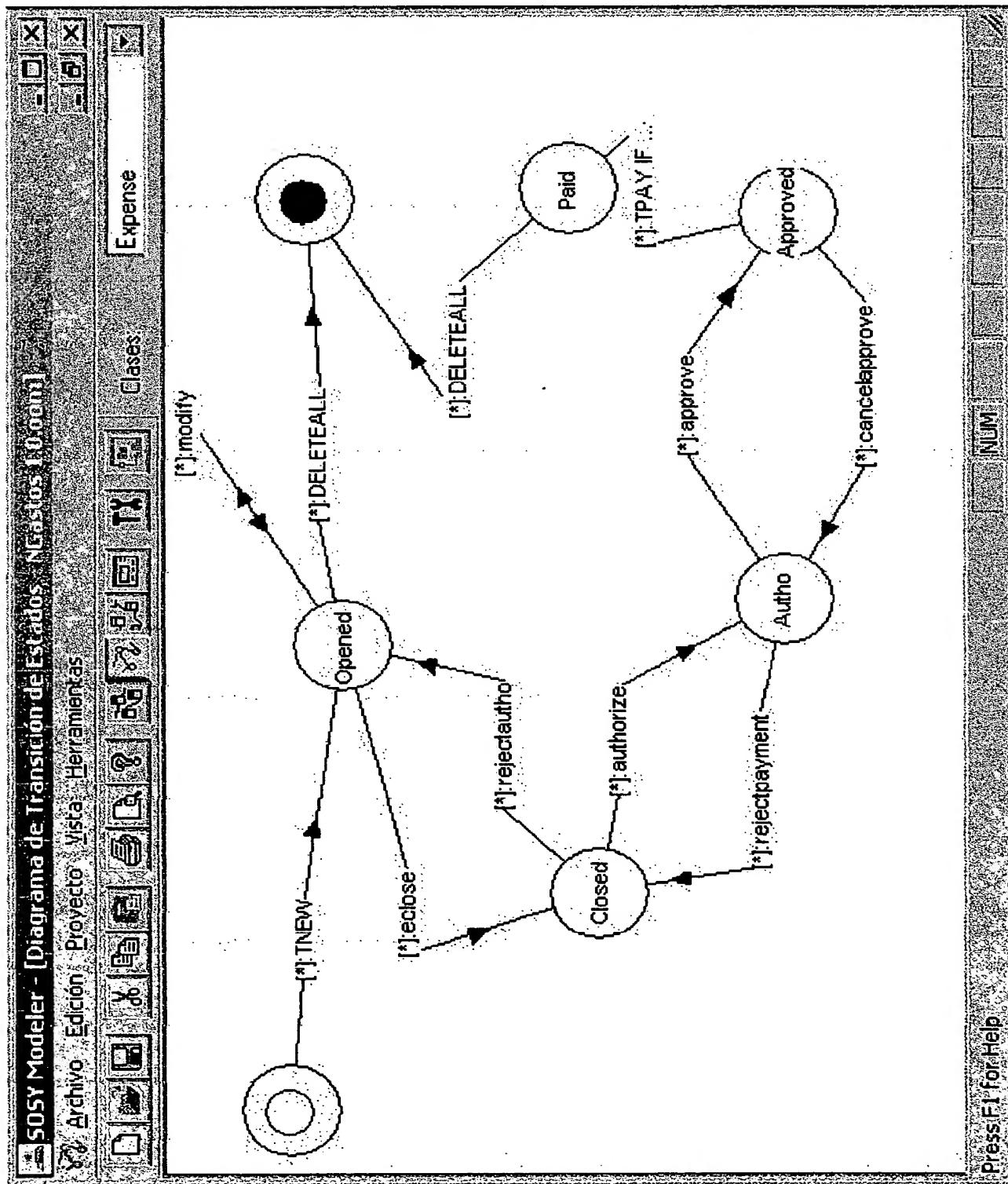


FIG. 16

STATE TRANSITION
DIAGRAM FOR
CLASS "EXPENSE"

FIG. 17



Transición

Origen:

Destino:

Detalles

Agentes:

Precondición:

Condición de control:

Mensaje en caso de Error:

DIALOG BOX TO
MODEL
PRECONDITION

FIG. 18

DIALOG BOX USED BY
SOSSY MODELER
TO ESTABLISH A SET OF
ATTRIBUTES
TO BE DISPLAYED FOR
THE "EXPENSE" CLASS

Atributos a visualizar																																																							
Nombre	<input type="text" value="CV_Expense"/>	<input type="button" value="Limpiar"/>	<input type="button" value="Borrar"/>																																																				
<table border="1"> <thead> <tr> <th colspan="2">Atributos</th> </tr> </thead> <tbody> <tr> <td><input type="button" value="Añadir"/></td> <td><input type="button" value="«Añadir»"/></td> </tr> <tr> <td><input type="button" value="Eliminar"/></td> <td><input type="button" value="»Eliminar»"/></td> </tr> <tr> <td><input type="button" value="Subir"/></td> <td><input type="button" value="↓Subir"/></td> </tr> <tr> <td><input type="button" value="Bajar"/></td> <td><input type="button" value="↑Bajar"/></td> </tr> <tr> <td><input type="button" value="Añadir"/></td> <td><input type="button" value="«Añadir»"/></td> </tr> </tbody> </table>				Atributos		<input type="button" value="Añadir"/>	<input type="button" value="«Añadir»"/>	<input type="button" value="Eliminar"/>	<input type="button" value="»Eliminar»"/>	<input type="button" value="Subir"/>	<input type="button" value="↓Subir"/>	<input type="button" value="Bajar"/>	<input type="button" value="↑Bajar"/>	<input type="button" value="Añadir"/>	<input type="button" value="«Añadir»"/>																																								
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Status	Int	PaymentDate	Date																																																				
AuthoDate	Date	PayComments	String																																																				
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<input type="button" value="Añadir"/>	<input type="button" value="«Añadir»"/>																																																						

19
FIG.

DIALOG BOX USED BY
 SOSY MODELER
 TO ESTABLISH THE
 SEARCHING CRITERIA
 FOR THE EXPENSE
 CLASS AND TO ESTABLISH
 THE FILTER FORMULA
 TO USE AND THE
 VARIABLES TO REQUEST
 THE USER TO ENTER

Expense

Variables

Nombre	Alias	Tipo dato	Tipo estadio	Estado	Nueva
vi_Project	Project	Project	Sel_Población	<input type="checkbox"/>	<input checked="" type="checkbox"/>
vi_Employee	Employee	Employee	Sel_Población	<input type="checkbox"/>	<input checked="" type="checkbox"/>
vi_DateInIssue	InitialIssuing Date	Date		<input type="checkbox"/>	<input checked="" type="checkbox"/>
vi_DateEndIssue	Final Issuing Date	Date		<input type="checkbox"/>	<input checked="" type="checkbox"/>
vi_DateInApp	Initial Approving Date	Date		<input type="checkbox"/>	<input checked="" type="checkbox"/>

Observ

Filter

Expense Reports

Borrar

Limpiar

Expense

Alias

Cancel

Aceptar

Nombre:

Alias:

Tipo de dato:

Tipo:

Simple

Objeto valorado

Estado de inicio:

Estado de selección:

Clase:

FIG. 20

FLOWCHART OF THE FUNCTIONS THAT ALL SPECIES IN THE
DOCUMENTATION GENERATOR TRANSLATOR SUBGENUS WILL PERFORM

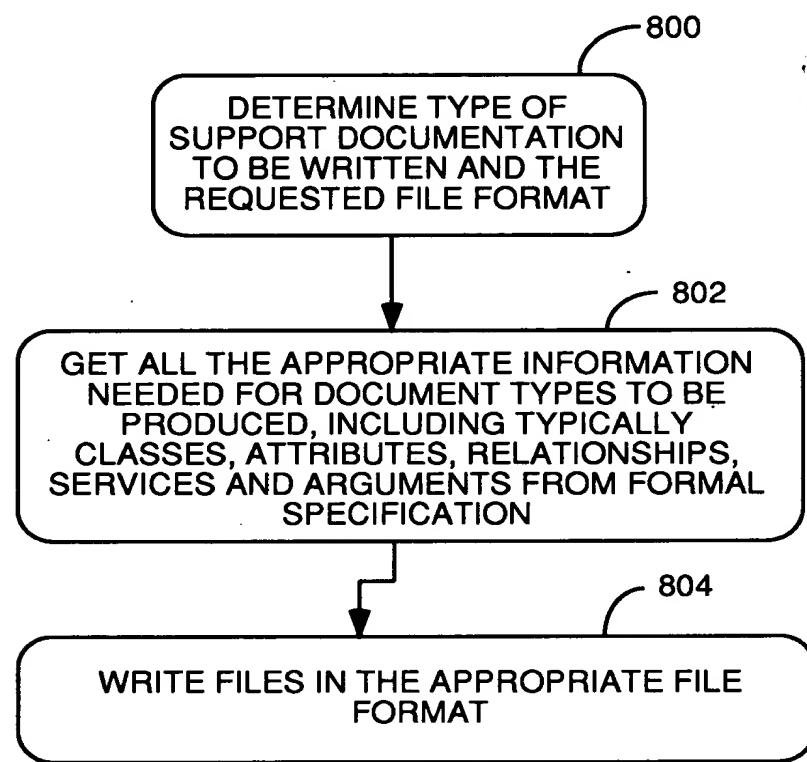


FIG. 21